

WHAT IS CLAIMED IS:

1. A printhead comprising:
  - a plurality of printing elements for printing;
  - a block selection circuit for outputting a selection
  - 5 signal for selecting a block of a plurality of printing elements that can be simultaneously driven;
  - a printing control circuit for outputting a driving signal for selectively driving said printing elements, together with the selection signal, to each of said printing
  - 10 elements in correspondence with image data; and
  - input means for receiving external image data to be input to said printing control circuit,
  - wherein said input means is adapted to receive the image data and block selection data input to said block
  - 15 selection circuit in a bus format of a plurality of consecutive bits.
2. The printhead according to claim 1, wherein said input means is adapted to parallelly receive the image data over a plurality of signal lines.
- 20 3. The printhead according to claim 1, wherein said input means is adapted to receive data in units of 4 bits.
4. The printhead according to claim 1, wherein said block selection circuit includes a decoder.
5. The printhead according to claim 1, wherein said
- 25 printing element performs printing by using heat energy.
6. The printhead according to claim 1, wherein said

printing element performs printing by discharging ink.

7. A printhead comprising:

a plurality of printing elements for printing;

a block selection circuit for outputting a selection  
5 signal for selecting a block of a plurality of printing  
elements that can be simultaneously driven;

a printing control circuit for outputting a driving  
signal for selectively driving said printing elements,  
together with the selection signal, to each of said printing  
10 elements in correspondence with image data; and

input means for receiving external image data to be  
input to said printing control circuit,

wherein said input means is adapted to receive the  
image data in a bus format of a plurality of bits.

15 8. The printhead according to claim 7, wherein said input  
means is adapted to parallelly receive the image data over  
a plurality of signal lines.

9. The printhead according to claim 7, wherein said input  
means is adapted to receive data in units of 4 bits.

20 10. The printhead according to claim 7, wherein said input  
means is adapted to receive data input to said block selection  
circuit together with the image data.

11. The printhead according to claim 7, wherein said input  
means is adapted to continuously receive the image data and  
25 data input to said block selection circuit.

12. The printhead according to claim 7, wherein said block

selection circuit includes a decoder.

13. The printhead according to claim 7, wherein said printing element performs printing by using heat energy.

14. The printhead according to claim 7, wherein said  
5 printing element performs printing by discharging ink.

15. A printhead comprising:

a plurality of printing elements for printing;

a block selection circuit for outputting a selection  
10 signal for selecting a block of a plurality of printing  
elements that can be simultaneously driven;

a printing control circuit for outputting a driving  
signal for selectively driving said printing elements,  
together with the selection signal, to each of said printing  
elements in correspondence with image data; and

15 input means for receiving external image data to be  
input to said printing control circuit,

wherein said input means is adapted to receive data  
associated with a printing element driving timing  
continuously with the image data.

20 16. The printhead according to claim 15, wherein a  
printing element driving time is set in accordance with the  
data associated with the driving timing.

17. The printhead according to claim 15, wherein said  
input means is adapted to receive data input to said block  
25 selection circuit together with the image data.

18. The printhead according to claim 15, wherein said

input means is adapted to continuously receive the image data and data input to said block selection circuit.

19. The printhead according to claim 15, wherein said block selection circuit includes a decoder.

5 20. The printhead according to claim 15, wherein said printing element performs printing by using heat energy.

21. The printhead according to claim 1, wherein said printing element performs printing by discharging ink.

22. A method of driving a printhead including a plurality  
10 of printing elements for printing, a block selection circuit for outputting a selection signal for selecting a block of a plurality of printing elements that can be simultaneously driven, a printing control circuit for outputting a driving signal for selectively driving the printing elements,  
15 together with the selection signal, to each of the printing elements in correspondence with image data, and input means for receiving external image data to be input to the printing control circuit, comprising the steps of

causing the input means to receive the external image  
20 data and block selection data input to the block selection circuit in a bus format of a plurality of consecutive bits, and causing said printing control circuit to drive the printing elements of a block selected by the block selection circuit in correspondence with the image data.

25 23. The method according to claim 22, wherein the input means parallelly receives the image data over a plurality

of signal lines.

24. The method according to claim 22, wherein the input means receives data in units of 4 bits.

25. A method of driving a printhead including a plurality  
5 of printing elements for printing, a block selection circuit for outputting a selection signal for selecting a block of a plurality of printing elements that can be simultaneously driven, a printing control circuit for outputting a driving signal for selectively driving the printing elements,  
10 together with the selection signal, to each of the printing elements in correspondence with image data, and input means for receiving external image data to be input to the printing control circuit, comprising the steps of

causing the input means to receive the external image  
15 data in a bus format of a plurality of bits, and causing said printing control circuit to drive the printing element of a block selected by said block selection circuit in correspondence with the image data.

26. The method according to claim 25, wherein the input  
20 means parallelly receives the image data over a plurality of signal lines.

27. The method according to claim 25, wherein the input means receives data in units of 4 bits.

28. A method of driving a printhead including a plurality  
25 of printing elements for printing, a block selection circuit for outputting a selection signal for selecting a block of

a plurality of printing elements that can be simultaneously driven, a printing control circuit for outputting a driving signal for selectively driving the printing elements, together with the selection signal, to each of the printing elements in correspondence with image data, and input means for receiving external image data to be input to the printing control circuit, comprising the steps of

causing the input means to receive data associated with a printing element driving timing continuously with the image data, and causing the printing control circuit to drive the printing elements of a block selected by the block selection circuit in correspondence with the image data.

29. The method according to claim 28, wherein a printing element driving time is set in accordance with the data associated with the driving timing.

30. The method according to claim 28, wherein the input means receives data input to the block selection circuit together with the image data.

31. The method according to claim 28, wherein the input means continuously receives the image data and data input to the block selection circuit.

32. A data output apparatus for outputting image data and a block selection signal to input means of a printhead, said printhead including a plurality of printing elements for printing, a block selection circuit for outputting the selection signal for selecting a block of a plurality of

printing elements that can be simultaneously driven, a  
printing control circuit for outputting a driving signal for  
selectively driving said printing elements together with the  
selection signal to each of said printing elements in  
5 correspondence with the image data, and said input means for  
receiving external image data to be input to said printing  
control circuit,

wherein said data output apparatus outputs the image  
data and the block selection data input to said block  
10 selection circuit in a bus format of a plurality of  
consecutive bits.

33. The apparatus according to claim 32, wherein the image  
data is parallelly output to said input means over a plurality  
of signal lines.

15 34. The apparatus according to claim 32, wherein data is  
output to said input means in units of 4 bits.

35. The apparatus according to claim 32, wherein said  
printing element performs printing by discharging ink with  
using heat energy.

20 36. A data output apparatus for outputting image data to  
input means of a printhead, said printhead including a  
plurality of printing elements for printing, a block  
selection circuit for outputting a selection signal for  
selecting a block of a plurality of printing elements that  
25 can be simultaneously driven, a printing control circuit for  
outputting a driving signal for selectively driving said

printing elements together with the selection signal to each of said printing elements in correspondence with the image data, and said input means for receiving external image data to be input to said printing control circuit,

5            wherein said data output apparatus outputs the image data in a bus format of a plurality of bits.

37.    The apparatus according to claim 36, wherein said apparatus is adapted to output the image data together with data supplied to said block selection circuit to said input  
10    means.

38.    The apparatus according to claim 36, wherein said apparatus is adapted to output the image data and data supplied to said block selection circuit to said input means, continuously.

15    39.    The apparatus according to claim 36, wherein said printing element performs printing by discharging ink with using heat energy.

40.    A data output apparatus for outputting image data to input means of a printhead, said printhead including a  
20    plurality of printing elements for printing, a block selection circuit for outputting a selection signal for selecting a block of a plurality of printing elements that can be simultaneously driven, a printing control circuit for outputting a driving signal for selectively driving said  
25    printing elements together with the selection signal to each of said printing elements in correspondence with the image



data, and said input means for receiving external image data to be input to said printing control circuit,

wherein said data output apparatus outputs data associated with a printing element driving timing  
5 continuously with the image data.

41. The apparatus according to claim 40, wherein the data associated with the driving timing is data for setting a printing element driving time.

42. The apparatus according to claim 40, wherein data  
10 supplied to said block selection circuit is output to said input means, together with the image data.

43. The apparatus according to claim 40, wherein the image data and data supplied to the block selection circuit are continuously output to said input means.

15 44. The apparatus according to claim 40, wherein said printing element performs printing by discharging ink with using heat energy.